

REMARKS

Applicant respectfully requests reconsideration of this application as amended. Claims 9-14, 18-21, and 56-58 remain in the application. Claims 9, 18, and 56 have been amended. No claims have been added or canceled.

Rejections under 35 U.S.C. § 102(e)

Applicant's claims 9-14, 18-21, and 56-58 have been rejected under 102(e) as being anticipated by Hama, US Patent Publication No. 2004/0202171. Applicant does not admit that Hama is prior art and reserves the right to swear behind the reference at a later date. Nonetheless, Applicant respectfully submits that Hama does not disclose each and every element of the invention as claimed in claims 9-14, 18-21, and 56-58.

Hama discloses establishing a virtual private network (VPN) where the core network for the VPN is a multi-protocol label switched (MPLS) network and networks for accessing the core network are virtual local area networks (VLANs) (Hama, Abstract). Hama's router comprises a sub-router and line cards (Hama, Figure 2, paragraph 0072-0073). The line cards transmit and receive packets and forward the packets to the sub-router for processing (Hama, paragraph 0072). A transmit-side edge router converts VLAN VPN traffic to MPLS VPN traffic by determining an MPLS label corresponding to the VLAN tag, stripping the VLAN tag off the packets, pushing the MPLS label onto the packets and forwarding the MPLS traffic onto the MPLS network (Hama, paragraph 0071).

Conversely, an edge-side router converts the MPLS VPN traffic back to VLAN VPN traffic by determining the VLAN tag associated with the MPLS label, popping the

MPLS label off the packets, adding the corresponding VLAN tag to the packets and forwarding the packets onto the VLAN network (Hama, paragraph 0071).

Within the MPLS network, the sub-router forwards the MPLS VPN traffic via a label switched path (LSP) (Hama, paragraph 0015). Each sub-router router maintains a table for the LSP that defines the MPLS label processing (Hama, paragraph 0015). However, Hama does not teach or suggest that the MPLS routers having separate control and data plane with different types of LSP data structures. Furthermore, Hama does not teach or suggest selectively forwarding LSP data structures to the relevant line cards on the ingress and egress line card associated with the LSP.

Applicant respectfully submits that Hama does not teach or suggest Applicant's claims. In particular, Hama discloses an MPLS router that receives packets with a line card and processes the packets based on the appropriate LSP assigned to the packets with a sub-router. Nonetheless, Hama does not teach or suggest distributing LSP forwarding data structures to different lines card, much less distributing the LSP forwarding data structures based on the ingress and egress line cards associated with the LSP. For example, claim 9 requires "...distributing different ones of the forwarding data structures to different ones of the plurality of line cards apart from distribution to the plurality of routing protocol modules and the routing information base, wherein the distribution of a particular forwarding data structure to a particular line card is based on an ingress and an egress line card associated with the LSP represented by the particular forwarding data structure."

As another example, claim 18 requires, as amended, "...a label manager to distribute different ones of the forwarding data structures to different ones of the plurality of line cards, wherein the distribution of a particular forwarding data structure to a

particular line card is based on an ingress and an egress line card associated with the label switched path represented by the particular forwarding data structure.

Furthermore, claim 56 requires “ ... maintaining in a control plane a first data structure that represents a label switched path (LSP), the first data structure indicating a virtual port, a virtual slot, and an identifier to distinguish LSPs of the virtual port and the virtual slot ... distributing the first data structure, the index, and the egress to certain of a set of one or more label forwarding information bases (LFIBS) in a data plane, wherein the distribution is based on an ingress and an egress line card associated with the LSP.”

The above quoted limitations are not described or suggested by Hama. While there are various uses for the invention as claimed, several such uses are discussed at paragraphs 0030-0034. Thus, while the invention is not limited to the uses discussed in these paragraphs, it should be understood that Hama does not enable these uses and the above quoted limitations do.

For at least these reasons, Applicant respectfully submits that the independent claims are allowable. Applicant respectfully submits that the dependant claims are allowable for at least the reason that they are dependent on an allowable independent claim.

Conclusion

Applicant respectfully submits that the rejections have been overcome by the amendments and remarks, and that the Claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the Claims as amended be allowed.

Invitation for a telephone interview

The Examiner is invited to call the undersigned at 408-720-8300 if there remains any issue with allowance of this case.


Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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Date: Sept. 27, 2006


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